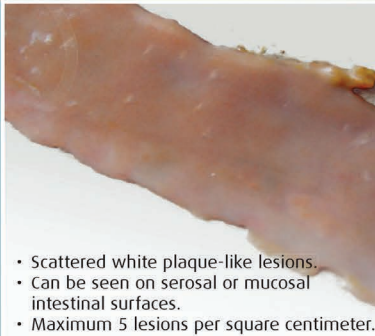
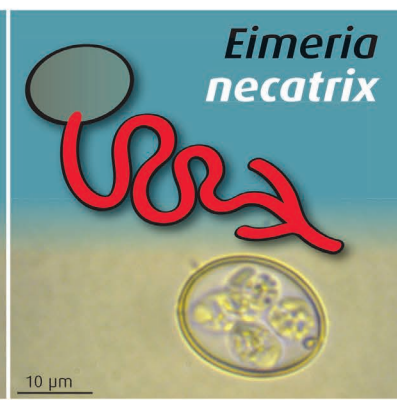
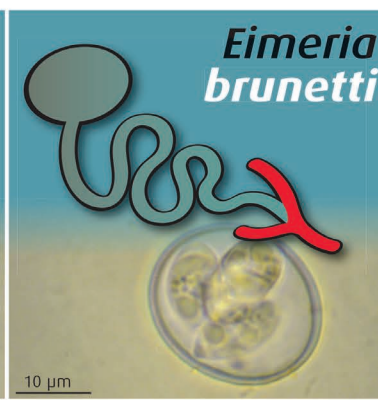
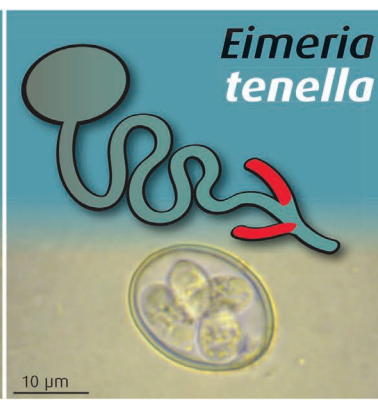
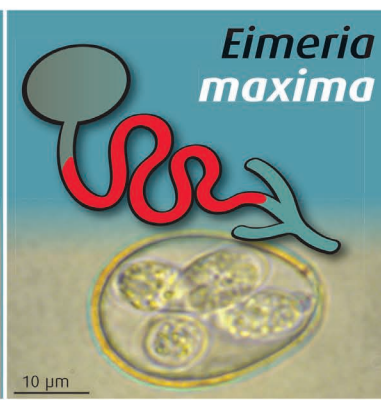
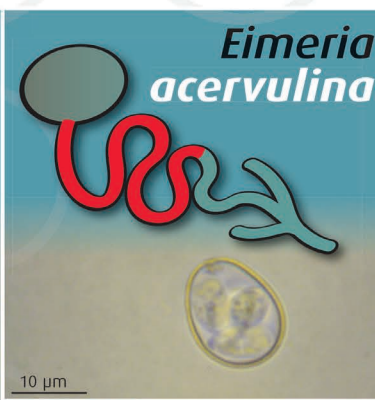


# Lesion scoring in practice

**1**  
Score 1



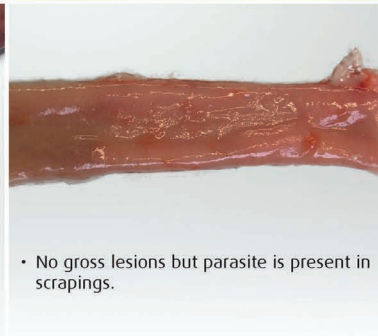
- Scattered white plaque-like lesions.
- Can be seen on serosal or mucosal intestinal surfaces.
- Maximum 5 lesions per square centimeter.



- Small red petechiae may appear on the serosal side of the midintestine.
- No ballooning or thickening of the intestine; small amounts of orange mucus may be present.



- Very few scattered petechiae on cecal wall.
- No thickening of the cecal wall.
- Normal cecal contents.

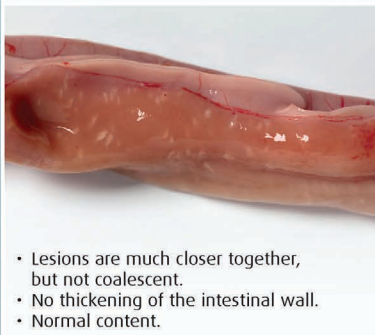


- No gross lesions but parasite is present in scrapings.



- Small scattered petechiae and white spots are easily seen from the serosal side.
- Little, if any, damage is apparent on the mucosal surface.

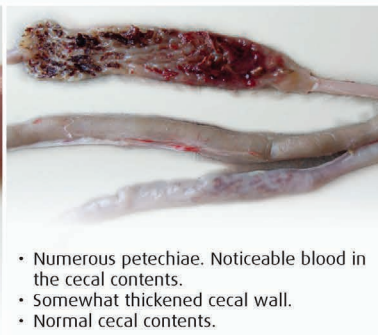
**2**  
Score 2



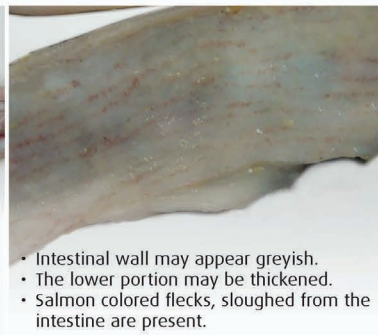
- Lesions are much closer together, but not coalescent.
- No thickening of the intestinal wall.
- Normal content.



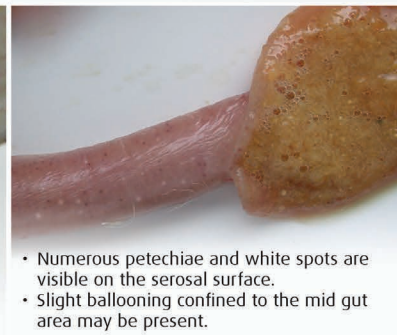
- The serosal surface may be speckled with numerous red petechiae and the intestine may be filled with orange mucus.
- Little or no ballooning of the intestine.
- Thickened intestinal wall.



- Numerous petechiae. Noticeable blood in the cecal contents.
- Somewhat thickened cecal wall.
- Normal cecal contents.



- Intestinal wall may appear greyish.
- The lower portion may be thickened.
- Salmon colored flecks, sloughed from the intestine are present.

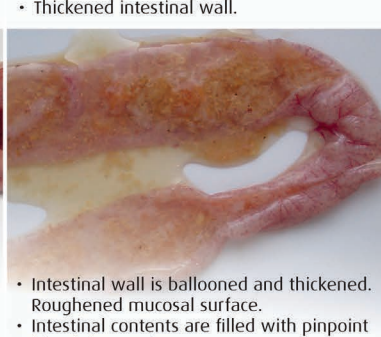


- Numerous petechiae and white spots are visible on the serosal surface.
- Slight ballooning confined to the mid gut area may be present.

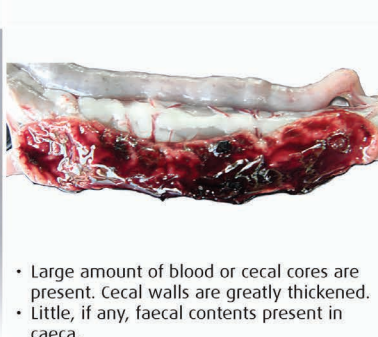
**3**  
Score 3



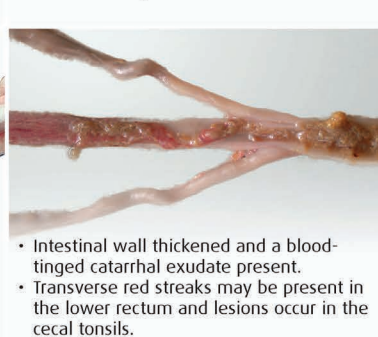
- Lesions are numerous enough to cause coalescence in the lesion size.
- Coated appearance of the intestine.
- Thickened intestinal wall, watery content.



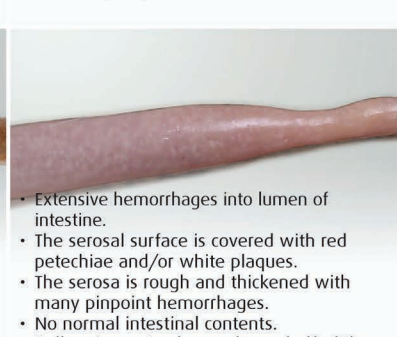
- Intestinal wall is ballooned and thickened. Roughened mucosal surface.
- Intestinal contents are filled with pinpoint blood clots and mucus.



- Large amount of blood or cecal cores are present. Cecal walls are greatly thickened.
- Little, if any, faecal contents present in caeca.

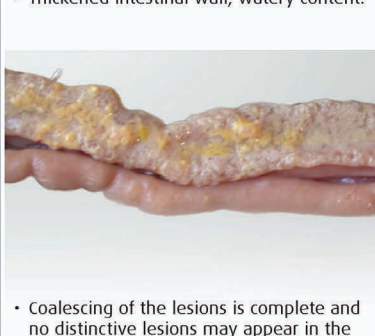


- Intestinal wall thickened and a blood-tinged catarrhal exudate present.
- Transverse red streaks may be present in the lower rectum and lesions occur in the cecal tonsils.
- Soft mucus plugs may be present in this area.

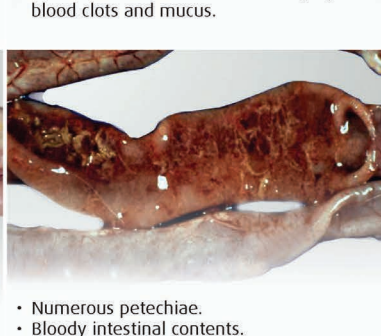


- Extensive hemorrhages into lumen of intestine.
- The serosal surface is covered with red petechiae and/or white plaques.
- The serosa is rough and thickened with many pinpoint hemorrhages.
- No normal intestinal contents.
- Ballooning extends over lower half of the small intestine.

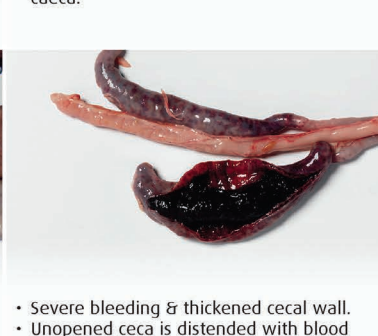
**4**  
Score 4



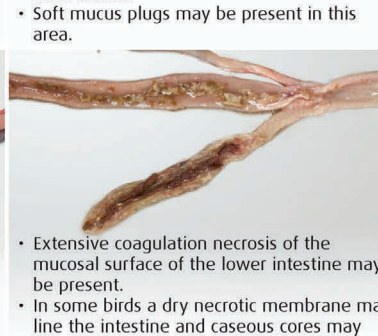
- Coalescing of the lesions is complete and no distinctive lesions may appear in the duodenum.
- Thickened & roughened intestinal wall.



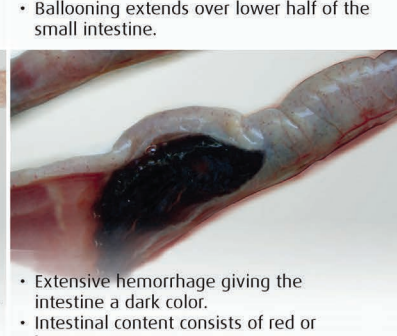
- Numerous petechiae.
- Bloody intestinal contents.



- Severe bleeding & thickened cecal wall.
- Unopened ceca is distended with blood at the distal end. The ceca might be contracted and shortened.



- Extensive coagulation necrosis of the mucosal surface of the lower intestine may be present.
- In some birds a dry necrotic membrane may line the intestine and caseous cores may plug the caeca.
- Lesions may extend into middle/upper intestine.



- Extensive hemorrhage giving the intestine a dark color.
- Intestinal content consists of red or brown mucus.
- Ballooning may extend throughout much of the length of the intestine.

Lesionscoring according to Johnson and Reid (1970, Exp. Parasitology)  
Pictures kindly provided by Poulpharm and Jean-Michel Reperant

## Total Mean Lesion Score (TMLS)

- Total of scores for *E. acervulina*, *E. maxima* and *E. tenella* per chicken
- Sum of totals divided by number of chickens analysed (minimum 5)

As a practical example:

However, many influencing factors should be taken into account:

- Importance of respective species
- Severity of the lesions
- Season
- Others

If TMLS > 1,5 = problem

If TMLS > 1,0 = take species into consideration for further actions

Example calculation of Total Mean Lesion Score (TMLS)				
Birds	Lesion Scores			Total
	<i>Eimeria acervulina</i>	<i>Eimeria maxima</i>	<i>Eimeria tenella</i>	
1	0	0	1	1
2	1	1	0	2
3	0	1	2	3
4	0	0	3	3
5	0	1	1	2
Total	1/5	3/5	7/5	11
	0.2	0.6	1.4	11/5
TMLS = Total / number of animals				2,2

**HUVEPHARMA**  
We add performance to your business



Foot Pad Dermatitis (FPD) becomes a more and more important factor in animal welfare and farm profitability. Wet and sticky litter is increasing the prevalence of FPD, so an optimal litter quality should be maintained during the whole year.

The Foot Pad Lesion Score card can be used as a management tool to minimize Foot Pad Dermatitis in broiler farms.

# Foot pad lesion score card

## score 0

### NO LESION

No or very small superficial lesions, slight discolouration on limited area of the foot pad, mild hyperkeratosis or healed skin.



## score 1

### MILD LESION

Substantial discolouration of the foot pad, superficial lesion, dark papillae.



## score 2

### SEVERE LESION

Ulcers or scabs of significant size, signs of haemorrhages or severely swollen food pad.



Pictures: Copyright Lotta Berg, SLU